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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/983,090	10/23/2001	Yutaka Kitamura	Q66650	9148

7590 04/22/2003

SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 04/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/983,090

Applicant(s)

KITAMURA ET AL.

Examiner

Timothy P McAnulty

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 5, 7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Embodiment II - Figure 5 in Paper No. 4, filed 25 February 2003 is acknowledged.
2. Claims 5, 7, and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected embodiment, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 4, filed 25 February 2003.

Specification

3. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 is unclear as to which component: the belt transmission apparatus or the automatic belt tensioner; further comprises a housing having said spring accommodated therein with a viscous fluid filled therein.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-4,10,12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa et al. in view of Bartos et al.

Hayakawa et al. discloses in figures 2 and 3, a belt transmission apparatus comprising a rotating electric machine pulley 5; an engine pulley 4; an auxiliary pulley 8; a belt tension adjuster 1 having a pulley unit 20 and an automatic belt tensioner having an elastically deformable spring 36 located within a housing, a push rod 26, an elastic deformation unit 31,32,35. Hayakawa et al. further discloses in figure 2 and in lines 32-55 of column 2, a central processing unit 9 which sets the position of said push rod based on an rpm of said engine, inherently on a vehicle speed if it adjusts the position of said push rod based on the rpm of said engine, and the tension of said belt.

Hayakawa et al. discloses the basic apparatus as previously cited but does not disclose said electric machine pulley being a generator. However, Bartos et al. discloses an automatic belt tensioner for a combined starter generator mounted on a vehicle. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Hayakawa et al. in view of the teachings of Bartos et al. to include a starter generator as said rotating electric machine pulley so as to provide a single rotating electric machine pulley within said belt transmission apparatus to eliminate the need for two components.

Said automatic belt tensioner inherently adjusts the tension of the belt to be greater when said engine is started by said rotating electric machine than when said accessory pulley is driven after said engine is started since said automatic belt tensioner automatically adjusts tension in

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said belt, especially when a starting torque applied to said belt is greater than a driving torque applied to said belt.

8. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa et al. in view of Trzmiel et al.

Hayakawa et al. discloses the basic apparatus but does not disclose said elastic deformation unit comprising an electromagnetic coil, a spool, a cylindrical housing, and a piston. However, Trzmiel et al. teaches in figure 1, an automatic tensioner comprising an electromagnetic coil 56, a spool (not numbered) a cylindrical housing 5, a viscous fluid within said housing, and a piston 14. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Hayakawa et al. in view of the teachings of Trzmiel et al. to provide an elastic deformation unit comprising an electromagnetic coil 56, a spool (not numbered) a cylindrical housing 5, a viscous fluid within said housing, and a piston 14 so as to provide deformation of said spring with hydraulic fluid pressure instead of a mechanical gear system to achieve more precise position of said push rod.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa et al. in view of Foster et al.

Hayakawa et al. discloses the basic apparatus as previously cited but does not disclose said central processing unit set the position of the push rod based on an engine starting signal. However, Foster et al. teaches in 2, a belt tensioner which adjusts the tension within a belt entrained on pulleys of a vehicle based on an engine starting signal 100,101. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Hayakawa et al. in view of the teachings of foster et al. to include an

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engine starting signal to adjust the positioning of the push rod so as to provide proper tensioning of said belt when said belt is in a starting mode.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patent documents are cited to further show the state of the art regarding belt transmission s in general:

US Patent No. 5,733,214 to Shiki et al.

US Patent No. 4,533,341 to Yokota

US Patent No. 5,273,494 to Varin

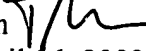
Japanese Patent document JP5-18447


US Patent No. 5,176,581 to Kumm

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

tpm 
April 16, 2003


William C. Joyce
Patent Examiner